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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/081,401

02/22/2002

Kelly Daly Flynn

2071

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7590

12/04/2003

ENERGY CONVERSION DEVICES, INC.
2956 WATERVIEW DRIVE
ROCHESTER HILLS, MI 48309

EXAMINER

BLACKWELL RUDASIL, GWENDOLYN A

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 12/04/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/081,401	FLYNN, KELLY DALY	
	Examiner	Art Unit	
	Gwendolyn A. Blackwell-Rudasill	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over United States Patent no. 6,108,295, Ohno et al.

Ohno et al disclose an optical information recording medium that incorporates a phase change alloy used in an optical disk, (column 1, lines 5-29). The phase change alloy is used in the recording layer made of a thin film of $M_y(\text{Sb}_x\text{Te}_{1-x})_{1-y}$ wherein $0 \leq y \leq 0.3$, $0.5 \leq x \leq 0.9$ and M_y can be In, meeting the requirements of claims 1 and 9-19, (column 4, lines 38-61). Absent evidence showing that the further limited amounts of x constitutes a critical range, the ranges as set forth in claims 2-4 and the formulas set forth in claims 5-7 do not provide patentable distinction over the prior art as the claimed ranges are encompassed by Ohno et al.

A chemical composition and its properties are inseparable. *MPEP 2112.02*. Because the prior art exemplifies the applicant's claimed phase change alloy formula, the claimed physical properties relating to the X-ray diffraction and sigma-to-dynamic range as well as the detectable

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levels are inherently present in the prior art. Absent an objective evidentiary showing to the contrary, the addition of the claimed physical properties to the claims fail to provide patentable distinction over the prior art meeting the requirements of claims 9-19.

In the alternative, it would have been obvious to one skilled in the art to make and use the same ranges of x and formulas as exemplified by Applicant, as those ranges and formulas fall within the phase change alloy as disclosed in the prior art. Absent a showing of criticality as to the particular ranges as claimed, the claimed ranges of x and the specific phase change alloy compositions do not provide patentable distinction over the prior art.

Response to Arguments

4. Applicant's arguments filed August 22, 2003 have been fully considered but they are not persuasive.

Applicant contends that Ohno et al do not disclose or suggest a multi-level recording device but teaches away from a multi level recording device consisting of In(SbTe).

Ohno et al disclose an optical recording medium that has rewrite capabilities using a phase change material, (column 4, lines 14-18). The phase change alloy is used in the recording layer made of a thin film of $M_y(Sb_xTe_{1-x})_{1-y}$ wherein $0 \leq y \leq 0.3$, $0.5 \leq x \leq 0.9$ and M_y can be In, (column 4, lines 38-61). While some of the specific embodiments disclosed by Ohno et al include silver, Ohno et al has specifically disclosed, (column 4, lines 54-55), that M_y need only be at least *one* of the elements and not one element *in addition* to silver. While an inventor may include preferred embodiments of a disclosed invention, there is no requirement that an inventor include every possible example or embodiment that can be used with the disclosed invention.

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The fact that Ohno et al disclosed that In could be used in the phase change recording layer wherein the composition of the components encompass the compositional range as exemplified by Applicant is enough to show that In can be used as part of the SbTe phase change material.

Furthermore, the passage of the Ohno et al specification that Applicant has relied upon as the basis for the argument that Ohno teaches away from using more than 8 at% of In, uses silver as part of the phase change material composition. There is no teaching or suggestion by Ohno et al that In when used with only Sb and Te should be used in such an amount.

Because Ohno et al disclose a phase change material and a structure that is substantially the same as that exemplified by Applicant, it would be inherent that the recording medium of Ohno et al would be multilevel as well as having the detectable level as claimed by Applicant absent an evidentiary showing to the contrary. As such, the rejections relating to present claims 1-19 stand.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (703) 305-9741. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gwendolyn A. Blackwell-Rudasill
Examiner
Art Unit 1775

GBR
gbr


DEBORAH JONES
SUPERVISORY PATENT EXAMINER